

What is Claimed Is:

1. A computer implemented delivery system for instructional information comprising:

at least one source that provides data;

5 at least one user interface that receives from a user input related to the data;

a plurality of output devices that receives audio and visual components of the instructional information;

10 a processor that generates audio and visual components of instructional information from provided data to at least one output device according to a software algorithm containing at least one predetermined rule ; and

communication links that transmit data and information between the at least one source, the user interface, the processor and the output devices.

2. The computer implemented delivery system of claim 1, wherein said at least one source comprises at least one of VCR, DVD, cameras, audio tuners, Internet and PC-based presentations.

3. The computer implemented delivery system of claim 1, wherein said at least one predetermined rule determines order and sequence in which data from each source is to be applied to the output devices.

4. The computer implemented delivery system of claim 2, wherein said user input determines which source provides data.

5. The computer implemented delivery system of claim 1, wherein software includes a control component that determines order and sequence in which data from each source is to be applied to the output devices.

6. The computer implemented delivery system of claim 1, wherein the plurality of output devices comprise three display screens or a set of speakers.

7. The computer implemented delivery system of claim 6, wherein each of the three display screens is further divided into a plurality of viewing areas in a predetermined pattern.

8. The computer implemented delivery system of claim 7, wherein at least one display screen is divided into four equal viewing areas.

9. The computer implemented delivery system of claim 7, wherein at least one display screen is divided into nine equal viewing areas.

10. The computer implemented delivery system of claim 7, wherein at least one display screen is divided into sixteen equal viewing areas.

11. The computer implemented delivery system of claim 7, wherein at least one display screen is divided into two or more unequal viewing areas.

12. The computer implemented delivery system of claim 6, wherein each of the three display screens is further divided into a plurality of viewing areas in a pattern different from the other screens.

13. A computer system comprising:
- at least one source that provides data;
 - a processor that receives and processing data related to instructional information to be applied to a plurality of output devices according to a software
- 5 algorithm and at least one predetermined rule;
- a plurality of output devices comprises:
 - a) a plurality of video output devices that display images related to the processed information ;

- b) a plurality of audio output devices that broadcast sounds related to at least one of the images;
 - at least one user interface that provides comments and instructions related to the displayed images and the broadcast sound;
 - communication links that transmit information and instructions; and
 - data switches that activate and deactivate data source devices according to a predetermined software algorithm,
 - whereby data switches provide a unique audio and visual output combination set by a plurality of rules associated with the software algorithm.

14. A computer system implemented over a network for delivering instructional information comprising:

- a network;
- at least one user interface connected to said network;
- at least one processor connected to said network that generates audio and visual instructional information according to input from the at least one user and at least one predetermined rule;
- at least one source that provides data over said network;
- a plurality of output device that produce audio and visual components of the instructional information;
- at least one source that captures information related to live interaction of an instructor and providing captured information to the audio and visual components; and
- at least one device server connected to said network and configured to receive an input from at least one user over said network, to receive data from at least one source over said network, transmit information associated with the data to the processor, and receive instructions from the processor according to at least

one predetermined rule that transmit the generated instructional information to the plurality of output devices.

15. The computer system for delivering instructional information according to claim 14, wherein the network is LAN.

16. The computer system for delivering instructional information according to claim 14, wherein the network is WAN.

17. The computer system for delivering instructional information according to claim 14, wherein the network is Internet.

18. The computer system for delivering instructional information according to claim 14, wherein at least one of the processor, the device server and data sources communicates remotely with the others over the network.

19. A computer implemented method for delivering instructional information, comprising the steps of:

providing data from at least one source;

receiving from a user control information related to the data;

5 generating, in a processor, commands to control audio and visual instructional information from provided data according to the user input and at least one predetermined rule; and

applying audio and visual components of information to a plurality of output devices; and

10 communicating data, user input and instructional information to the processor and the output devices, whereby the output devices are used to support classroom instructions by an instructor.

20. The computer implemented method of claim 19, wherein communicating data is carried out over serial communication links.

21. The computer implemented method of claim 19, wherein the user provides input through a graphical user interface.

22. The computer implemented method of claim 21, wherein the graphical user interface is displayed on a touch panel.

23. The computer implemented method of claim 21, wherein the graphical user interface includes graphical representation of control panels corresponding to each data source and each control panel emulates the actual control buttons on the data source device.

24. The computer implemented method of claim 23, wherein the graphical user interface further includes an area for an active source window displaying an image that is shown on the output devices.

25. The computer implemented method of claim 24, wherein the active source window displays images from other video sources comprising cameras, VCR, DVD and Internet.

26. The computer implemented method of claim 21, wherein an annotation device is coupled with the graphical user interface.

27. The computer implemented method of claim 21, wherein the graphical user interface further includes override capabilities, which comprises stopping one data source and starting another data source.

28. A machine-readable data storage medium encoded with a set of machine-executable instructions for using a data processing system to perform a method for delivering instructional information, said method comprising the steps of:

- 5 providing data from at least one source;
- receiving from a user control information related to the data;

generating in a processor commands to control audio and visual instructional information from provided data according to the user input and at least one predetermined rule; and

10 applying audio and visual components of instructional information to a plurality of output devices; and

communicating data, user input and instructional information to the processor and the output devices.

29. An apparatus for generating and delivering instructional information comprising:

a plurality of data source devices that provide recorded data;

5 a processor that receives and modifies data to generate instructional information from provided data;

a plurality of display screens and a plurality of speakers that broadcast visual and audio components of the instructional information;

communication links that transmit visual and audio components to the display screens and speakers;

10 a plurality of data sources that provide data captured from a presentation by an instructor conducted simultaneously with broadcasting the visual and audio components; and

15 a server provided with a plurality of switches that selecting one or more data sources to provide audio and visual components to the output devices based on instructions from the processor according to a software algorithm containing at least one predetermined rule, whereupon order and sequence in which data from each source is to be applied is determined.

30. Computer-readable instructions for delivering instructional information embodied in a carrier wave, comprising the steps of:

- providing data from at least one source;
- receiving control information related to the data from a user;
- 5 generating in a processor commands to control audio and visual instructional information from provided data according to the user input and a software algorithm containing at least one predetermined rule; and
- applying audio and visual components of information to a plurality of output devices; and
- 10 transmitting data and information between the at least one source, the user, the processor and the plurality of output devices.

31. A graphical user interface communicating user input to and from a system including a processor, data source devices, device servers and output devices in response to instructions according to a software program containing a predetermined set of rules that generate instructional information to be displayed

5 on a plurality of screens and broadcast over a plurality of speakers, the graphical user interface comprising:

- a first portion including graphical representations identifying a plurality of data source devices individually;
- a second portion on the remaining area including:
 - 10 a) graphical representation corresponding to at least a control panel that displays a set of control buttons corresponding to a selected data source device, the control panel includes graphical representation and relative positioning of buttons substantially similar to buttons on the actual data source device;
 - 15 b) an active source window that displays an actual image displayed on the screens;

 a graphical representation corresponding to a control feature that overrides a sequence and pattern of displaying images on the screens driven by the software

- 20 program to stop an output from one data source or start another data source to be applied to the screens and the speakers; and

the graphical user interface is displayed on a touch panel screen that displays information and receives input activated by user's touch.

32. The graphical user interface of claim 31, further comprising an annotation device coupled with the graphical user interface that adds comments by the user, said comments being superimposed over the image displayed on the screens.

33. A method for generating a graphical user interface for presentation to a user, said graphical user interface communicating a user input with a system including a processor, data source devices, device servers and output devices in response to instructions according to a software program containing a
5 predetermined set of rules that generates instructional information to be displayed on a plurality of screens and broadcast over a plurality of speakers, the method comprising:

generating a first set of data representing the graphical user interface as a background window to be displayed;

- 10 generating a second set of data representing a plurality of data source devices;

generating a third set of data representing a control panel including control buttons corresponding to each of a plurality of data source devices;

- 15 generating a fourth set of data representing an active source window that displays an actual image displayed on the output devices; and

the graphical user interface allowing user input by touching a surface of the user interface on displayed representations.

34. The method for generating a graphical user interface for presentation to a user according to claim 33, wherein a graphical representation

corresponding to a control panel for a device that provides data to the output devices is displayed.

35. The method for generating a graphical user interface for presentation to a user according to claim 33, wherein information corresponding to the function of that button is sent back to the device server each time a control button is touched.

36. The method for generating a graphical user interface for presentation to a user according to claim 33, wherein upon a selection of a data source device, control panel corresponding to selected device is displayed.

37. A student learning system for improved attention and retention of information during instructions, comprising:

at least three display screens that display instructional information; and
circuitry that supports displaying different video components on each

5 screen.

38. The student learning system of claim 37, wherein content of video components delivered to each screen is switched in accordance with a specific algorithm.

39. The student learning system of claim 38, wherein the algorithm is driven by at least one rule.

40. A computer system for delivering instructional information comprising:

at least one user interface;

at least one processor that generates audio and visual instructional
5 information according to input from the at least one user and at least one predetermined rule;

at least one source that provides data;

a plurality of output device that produces audio and visual components of the instructional information;

10 at least one source that captures information related to live interaction of an instructor and providing captured information to the audio and visual components; and

15 at least one device server configured to receive an input from at least one user, to receive data from at least one source, transmit information associated with the data to the processor, and receive instructions from the processor according to at least one predetermined rule that transmits the generated instructional information to the plurality of output devices.

41. The computer implemented method of claim 19, wherein the plurality of output devices comprise three display screens or a set of speakers.